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SPA INSTALLATION, USE & CARE MANUAL

ZIPPAS®

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PREPARATIONS BEFORE INSTALLING

The spa should be installed on a concrete pad that is at least 4” in thickness. The concrete should be sloping enough to permit water drainage away from the spa and its electrical components. If you chose to put your spa on wood decking, the decking must be strong enough to support the combined weight of the spa, the water and the individuals in the spa. A 5 person 2000 litres spa weighs approximately 2500kg. When locating and installing your spa, make sure that the equipment compartment is easily accessible for maintenance.

Indoor Location

If you install indoors, 2 things need to be considered : water drainage and ventilation. When using the spa steam escaping from the water surface should be vented out so as not to damage room interiors.

Outdoor Location

If you install your spa outdoors, consider the following :

1. Walking areas around the spa and the path to it should be free of dirt, sand and other debris you don’t want in the spa.
2. The spa should not be installed close to, or under trees. Tree leaves and birds are detrimental to spa cleanliness.
3. A spa sheltered from weather factors is less expensive to maintain and operate.
4. Thoughtful location of your spa can enhance your privacy safety and security and add to your enjoyment of your spa.

ELECTRICAL CONNECTION INSTRUCTIONS.

NOTICE :

All spa electrical wiring must be performed by a qualified licensed electrician and must meet all NEC (National Electrical Code) and state and local codes and requirements.

DANGER - RISK OF ELECTRIC SHOCK:

1. The lines carrying power to the spa must be dedicated to the spa and `should not be shared with any other appliances.
2. All electrical wiring lines must originate from the electrical panel and terminate, hard wired, into the electrical wiring compartment. The use of extension cords or plug type termination is expressly prohibited and voids the warranty.
3. Do not use aluminum wiring. Use only copper wiring.
4. Wire gauge must be in accordance with NEC requirements for the distance from current source to spa and the current rating as stated on the ID label that is attached to the equipment control enclosure.
5. All wiring must be shielded by a grounded metal conduit. The conduit must terminate at the electrical access compartment either from the bottom of the spa or through a hole in the side paneling of the spa Control systems Instructions.

SPA START UP DIRECTIONS

The following procedure should be followed on initial start up and whenever the spa is drained for maintenance. Read each step in its entirety before proceeding with that step.

1. Fill The Spa With Water

a. Clear all debris from your spa.
b. Using a garden hose, start filling the spa with water.
c. DO NOT use water from a home water heater or softener.
d. As water level rises, check inside equipment compartment for water leaks.
It may be necessary to tighten loose unions and / or fittings.
e. Make sure SLIDE VALVES at pumps and heater are open. (Fully extended position)
f. Continue filling spa until water level is midway in the skimmer opening. All jets will be under water except neck & upper shoulder jets which will be above water level but are pointing downwards.

2. Apply Power

a. Rotate thermostat knob (if so equipped) counter clockwise to the lowest temperature setting.

b. Apply power by turning on the spa dedicated circuit breaker.

c. Test the GFCI : push the TEST button and power is cut off. Push RESET and power is restored. If these do not seem to work STOP do not use your spa : Either there is no power, the GFCI is defective or the equipment is malfunctioning. Only a qualified person should do further inspection. Typical Control &GFCI Slide Valve & Drain Faucet.

3. Bleed The System

Certain amount of air is trapped in the lower plumbing. Trapped air causes poor performance and may cause heater failure. To bleed it :

a. Run the jets pump in low speed.

b. Locate and loosen the heater output union a quarter turn.

c. After all the air has escaped, and when water starts dripping, hand tighten the union.

4. Add Startup Chemicals.

You should have an adequate supply of spa chemicals at hand. Please familiarize yourself with the necessary types and amounts of chemicals necessary to maintain your spa clean and healthful. Your spa dealer stocks the necessary chemicals and is usually a good source of information on chemicals and procedures. The importance of chemical balance in the spa cannot be over emphasized. At this time you should apply the proper chemicals. Please refer to the instructions included with your chemical kit for the proper procedures, amounts and the correct sequence of chemicals to be added .

5. Heat the spa to your desired temperature.

The spa will heat itself to the temperature setting that is set by you. Be sure to cover your spa so that it minimize the heat loss. Test all pumps when the temperature is set.

CHEMICALS & ADDITIVES

Water chemistry balance is extremely important in maintaining good water quality and the preservation of spa equipment. It is a simple task to maintain your spa chemistry in balance. It must be done on a Regular basis. The 2 parameters that have to be maintained are the pH and chlorine content.

pH BALANCE

pH is a measure of water acidity. On a scale of 0 to 14, 7.6 is the ideal point of balance. A measure below 7.6 indicates that spa water is more acid. Such a condition results in corrosion to spa equipment metal components. Above 7.6 means that spa water is more alkaline. This causes salt deposits, and scaling in the equipment and in the spa. Both conditions are detrimental and can cause damage.

CHLORINE / BROMINE

One of these sanitzers must be used to remove bacteria and other organic matter from the spa. Low sanitizer causes water to turn green and unhealthful. A high level makes water smell pungent, irritate the eyes and the skin and can cause damage to the metal components of the spa equipment.

Do not use chlorine other than what is designated for spa use. Specifically do not use chlorine intended for pool use.

The booklet or video tape that came with your spa's chemical kit contains detailed procedures for maintaining spa chemistry. Your dealer stocks variety of chemicals to maintain spa chemistry and can help you in the selection of the right chemicals and their methods of application. A number of other additives are available to enhance spa usage. These include additives to remove dissolved metals, reduce foaming and sudsing, remove body oils, some make the water feel and smell better.

ELECTRICAL INSTALLATION INSTRUCTIONS.

All electrical wiring must be performed by a qualified, licensed electrician in order to meet NEC, (National Electrical Code) state and local codes.

· This unit is a “Permanently Connected Equipment Assembly with Pump(s), Heater, Blower and Control.”

· The lines carrying power to the spa must be dedicated and should not be shared with other appliances. Use copper wiring only. Use # 6 AWG conductors.

· A pressure wire connector is provided on this unit to connect a minimum 8 AWG (8.4mm2) solid copper conductor between this unit and any metal equipment, metal enclosures of electrical equipment, metal pipe , or conduit within 5 feet (1.5m) of the unit .

· The electrical supply for this unit must include a suitably rated GFCI/ CIRCUIT BREAKER to open all ungounded supply conductors to comply with Section 422-20 of the National Electric Code.

A quick disconnect marked OFF must be readily accessible to the tub occupant , installed at least 5 feet (1m) from the tub.

· All electrical wiring lines must originate from the main electrical panel and terminate, hard wired, into the electrical wiring compartment. The use of extension cords, or plug type termination is expressly prohibited and voids the warranty.

· Minimum supply conductor ampacity must be 125 percent of the current rating stated on the ID label affixed to, equipment control enclosure.

PERMANENTLY CONNECTED
USE #6 AWG COPPER CONDUCTOR

Power Requirements

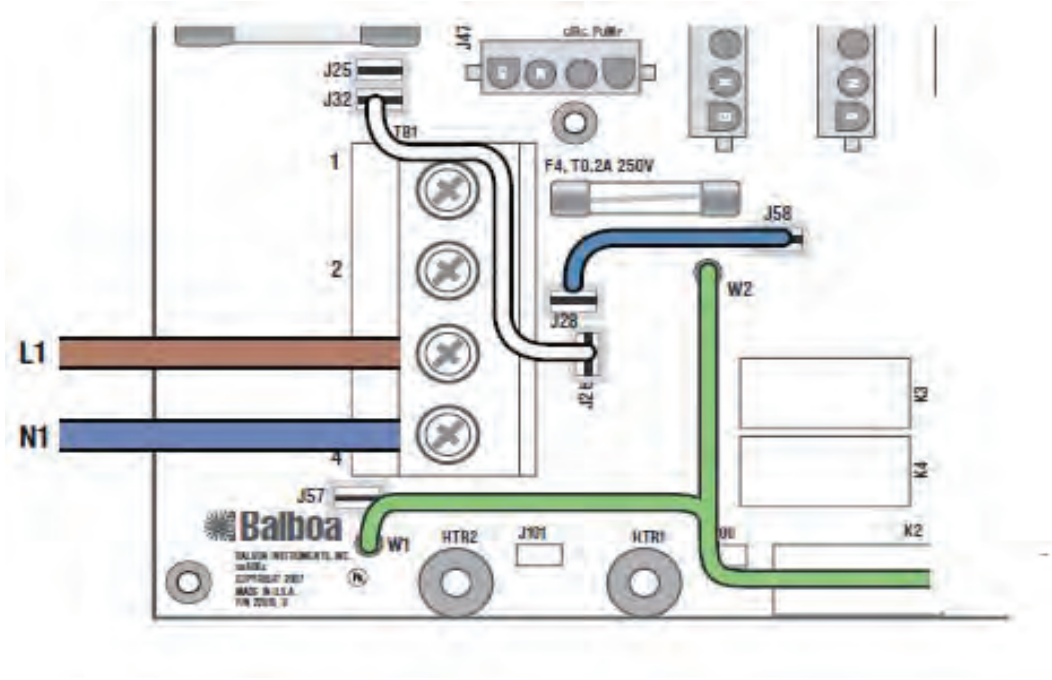
Single Service [3 wires (line, neutral, ground)]

- 230VAC, 50Hz, 1~, 16A/32A, (Circuit Breaker rating = 20A/40A max.)

System Outputs

Step 1 (As Manufactured)

230V Pump 1, 1-SSpeed
230V Pump 2, 1-SSpeed
230V Pump 3, 1-SSpeed
230V Blower
230V Ozone
10V Spa Light
230V AV (Stereo)
230V 3.0kw Heater*
230V Circ Pump



SPA MAINTENANCE

Your spa is designed to give you many years of enjoyment. Care and regular maintenance of your spa are important to keep it beautiful and operating properly. Your spa dealer can supply you with chemicals, detergents and the necessary tools and products to maintain you spa.

SPA SURFACE CARE

Do not use abrasive solvents or cleaners to clean your spa as they dull the surface sheen. Do not use soaps or sudsy type detergents to clean your spa. Consult your dealer for the proper cleaners and detergents.

FILTER MAINTENANCE

Your spa may have 1 or 2 filter elements. To remove the filters, open the weir gate to the outside, slide the basket out with the horizontal flats in the vertical plane. When filters are removed from the spa make sure that no object fall into the filter cavity. They can cause obstruction to water movement. Every 2 months, more often with heavy use, filter must be cleaned to get rid of objects and particles that are lodged in the filter pleats. Using a garden hose with a pressurized nozzle push water from the inside to the outside of the filter pleats forcing all trapped particles out. If the filter is far too dirty to be cleaned as described above, obtain from your dealer filter cleaner material. Soak the filter overnight, then hose it down. Filters will last many years if properly maintained.

HYDROTHERAPY JETS

There are 3 types of hydrotherapy jets : Moving jets, Adjustable jets and Micro jets. Moving jets rotate in a circular or random pattern and are not adjustable either pressure or direction. Adjustable jets are directional and may be adjusted for optimum water pressures. Move the jet's nozzle to change direction. Rotate the face of the jet to increase or decrease water pressure. It is possible to completely shut off a jet. Please note that if you shut off enough jets in the spa pressure may build up in the plumbing to unsafe levels. Micro jets are fixed; they are neither directional nor adjustable. They are usually installed to deliver therapy to specific areas of the body. Moving and Adjustable jets are interchangeable. Your spa dealer will be happy to show you how to exchange these jets.

Each model has a wide variety of hydrotherapy jets, specifically designed and positioned to deliver various forms of massage and relief

DRAINING YOUR SPA

Every 3 or 4 months or depending upon water condition, you need to renew spa water. To drain your spa, power must be disconnected at the circuit breaker. Within the equipment access compartment locate the drain faucet. Attach a garden hose to the faucet and then open it. Water will start draining. You may use it to water your garden. The drain faucet will not remove all the water in the spa. You may have to remove a small amount of water by hand, using a towel or a plastic container so as not to scratch spa surfaces.

Once the spa is drained and dry, you may want to carry out other maintenance chores, such as surface cleaning and waxing. To refill your spa with water please refer to and follow the instructions describe in the SPA STARTUP DIRECTIONS section.

WINTERIZING & LONG TERM STORAGE :

If you intend not to use your spa for an extended period of time, drain it as described above. You will also have to drain the pumps and the air channel. To drain the pumps you need to disconnect 2 hoses attached to each pump. These hoses are attached using unions that are hand tight. Be sure to attach the hoses after you are done.

Chlorine vs Bromine

Both these sanitizers if properly applied will maintain a sanitary spa. There are pros and cons on both sides, but the choice is up to the user. Please note these sanitizers are caustic, excessive dissolved amounts of which will cause damage to the spa equipment. It is therefore necessary to maintain the proper balance by periodic measurement of sanitizer content.

OZONE & OZONE GENERATORS

If your spa is equipped with an ozonator, you will have to set the spa to filter for at least 6 hours per day, preferably in 2 or 3 time periods. Please note that ozonators and chemical treatment are complimentary. Ozonators cannot totally eliminate the need of chemicals such as chlorine or bromine. Ozone is a bactericide. The active component in an ozonator is the ultraviolet light bulb. When power is applied to the bulb, ozone is generated. A tube links the ozone compartment with one or more jets. When the these jets are activated, water movement within the jet creates a venturi action that draws the ozone out of the ozone compartment, mixes it with the moving water purifying the water in the process. The light bulb has limited service life. Its production of ozone is degraded with use. Consult the manual of the ozonator's manufacturer to determine when the bulb should be replaced. Ozone is harmful. Do not inhale ozone for an extended period of time. Ultraviolet rays are harmful to human eyesight. Do not look directly at a burning ozone bulb. Whirl Pool Jet Filter Neck Jet

COMMONLY ASKED INSTALLATION QUESTION

Can I do the electrical installation myself?

Yes if the work meets NEC and local code. It is best to have a licensed electrician do the installation. A spa electrical installation must be protected by a GFCI breaker at he panel.

Do I need to pour a concrete slab for the spa?

A concrete slab is the best spa foundation. A spa can be installed on a deck designed for a load of 130 lbs per square foot. A spa may not be set on dirt or gravel.

How often do I need to drain the spa?

Once every 4 months on the average. More often with heavier usage. Turn the power off. Attach garden hose to the hose bib in the equipment compartment and let the spa drain. An immersion pump available at the Depot will drain the spa faster.

How often do I need to clean the filters?

On the average once a month the filters should be hosed off (from the inside out). Whenever the spa is drained, it is a good time to rinse the filters overnight in a solution of TSP. The filters should be hosed off before re-use. A set of filters will last many years. It is a good idea to have a spare set for use alternately between clean-ups.

What chemicals do I need to use and how often?

A test kit as well as the necessary chemicals are available at the Depot. You need:

① Test strips or a color kit.

② Spa Up and Spa Down to adjust the PH of the water if necessary.

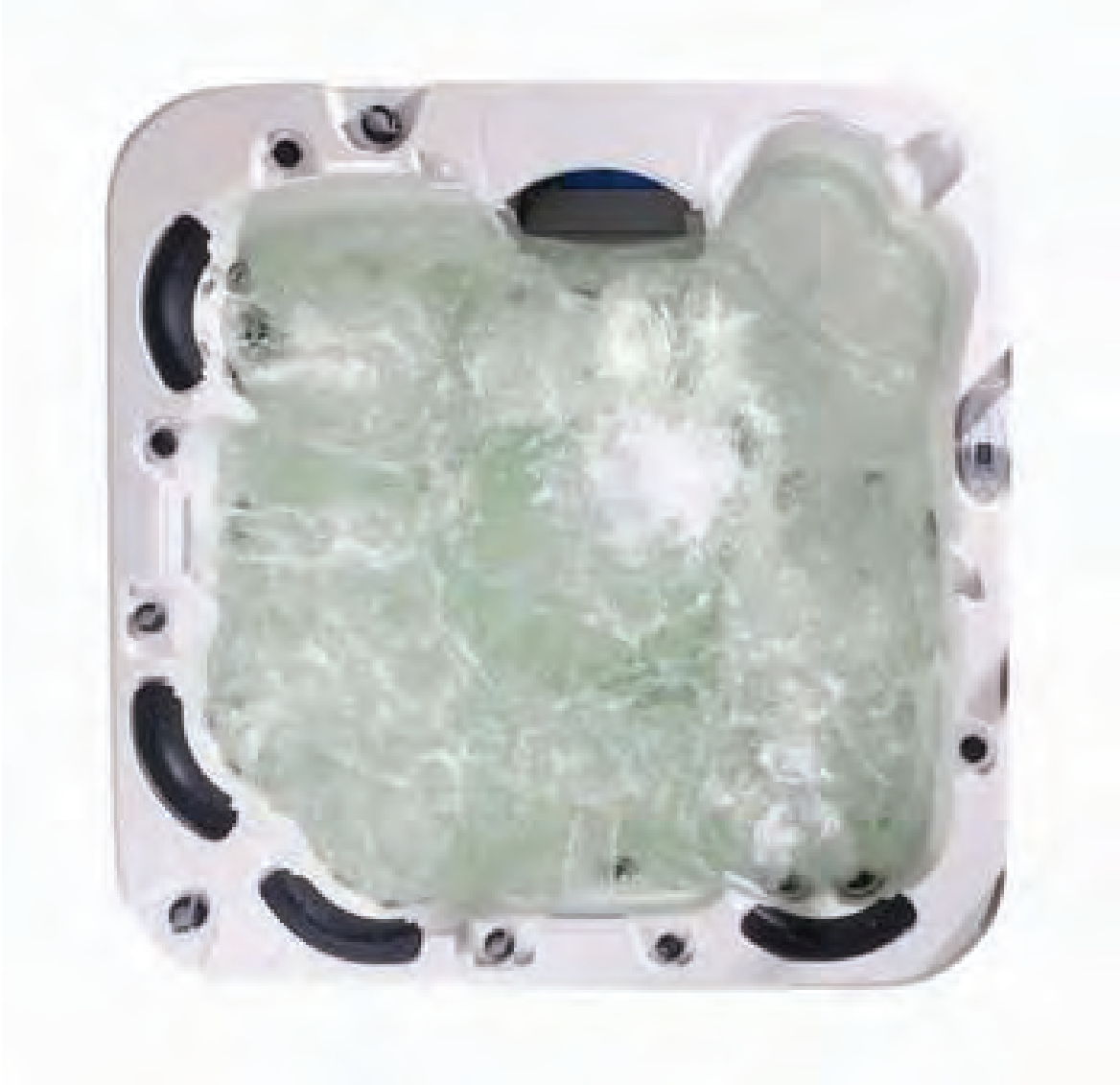
③ Chlorine (dichlor) or Bromine tablets to disinfect the water weekly or as needed.

④ Anti foam to reduce foaming if necessary.

⑤ Demineralizer such as MetalGonetto remove

⑥ Minerals from the water.

⑦ Brightner to eliminate cloudy water



CHEMICAL SAFETY TIPS

a.Read all labels and instructions carefully prior to use.
b.Never mix or combine chemicals.
c.When mixing or combining chemicals always add chemicals to water, not water to chemicals.
d.Always store chemicals in a cool, dry place.
e.Store chemicals out of the reach of children.
f.When not in use keep chemical containers tightly closed.
g.Never inhale chemical fumes or allow contact chemicals to come in contact with your eyes, nose or mouth.
h. Wash your hands thoroughly after handling chemicals.
i. Use chemicals especially formulated for hot tubs & spas.
j. Do not use chemicals formulated for pools - they may damage your spa.
k. Never drain chemically treated water on plants, lawns or in streams or lakes.
l. Test your spa water weekly.
m. Maintain the pH level at 7.2 to 7.5Maintain a sanitizer level of 3.0 to 5.0.

HOT WATER SAFETY TIPS

① Never use the spa at temperatures above 104F (40C).

② Do not drink alcoholic beverages while using the spa.

③ If you are on medication, consult your physician before using the spa.

④ Use the spa for 10 to 20 minutes at a time. Leave the spa to cool off for an equal amount of time.

⑤ Do not submerse your head below water. The water in the spa may have high concentration level of chemicals.

⑥ Pregnant women should consult their doctor before using the spa.

⑦ Shower before and after using the spa.

⑧ Children should never use the spa without adult supervision.

⑨ When not in use keep the spa covered and locked.

Maintaining proper spa water chemistry is necessary for a healthy spa. It will also extend the life of the equipment and prevent premature failure. A test kit is necessary to measure and adjust the pH level as well as the amount of available chlorine or sanitizer.

IMPORTANT SAFETY INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS.

WARNING:

To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.

A wire connector is provided on this unit to connect a minimum 8 AWG (8.4MM2) solid copper conductor between this unit and any metal equipment , metal enclosures of electrical equipment, metal water pipe, or conduit within 5 feet (1.5m) of the unit.

WARNING : For indoor use only. This unit is not intended for outdoor use.

CAUTION: THE EQUIPMENT AND CONTROLS SHALL BE LOCATED NOT LESS THAN 1M (5FT) HORIZONTALLY FROM THE SPA OR HOT TUB

1.HEALTH SAFETY PRECAUTIONS

1. Before using your spa you should check water temperature with a thermometer that is known to be accurate. Never use a spa with water temperature higher than 40 degree Celsius as this is considered the maximum safe temperature for healthy adults and only for short periods - 15 to 20 minutes at a time. You may remain immersed in water for longer periods of time provided water temperature is lower than 38 Degree Celsius which is approximately normal body temperature.
2. Alcohol consumption before or during spa usage should be totally avoided : it can cause spa users to lose consciousness and drown.
3. Individuals using prescription medications should check with their physician before using the spa. Certain medications may result in complications when used in conjunction with a spa.
4. Individuals suffering cardiac medical conditions such as heart disease, blood pressure and circulatory system problems or diabetes should check with a physician before using the spa.
5. Pregnant women can use the spa at temperatures below 38 Degree Celsius. Higher water temperature may cause injury. Please consult physician.
6. Hyperthermia (heat stroke) is a dangerous condition brought about by excessive heat. It especially affects the very young, the elderly, individuals under the influence of alcohol or drugs, and those that are on certain medications. The symptoms of hyperthermia are : sweating, dizziness, nausea, faintness, convulsions, increased pulse rate and shallow breathing and in the extreme unconsciousness. If you suspect hyperthermia, immediately get medical help, lay the victim on the back, with the head slightly elevated for easier breathing, cover the body with a blanket and apply ice packs to the head.
7. Emergency telephone numbers, such as a hospital, a physician, an ambulance, the paramedics and the police should be readily available and posted next to a close-by telephone.

2. PERSONAL SAFETY PRECAUTIONS

1. Please use the spa when others are present.
2. Children should use the spa only with adult supervision.
3. Children should have spa access only with the permission and supervision of an adult.
4. To reduce the risk of child drowning keep the spa filter clean and unclogged. Do not remove the cover of the main drains .Do not modify the suction or the filtration systems.
5. Spa surfaces are made of smooth materials and with water they become slippery. Exercise caution when entering or leaving the spa. When moving or changing positions be sure of your footing before applying your full weight as water refraction can be misleading.
6. Do not stay in the spa for extended periods of time. Set a reasonable time limit after which leave the spa, cool down, take a shower, relax, then return for another stay in the spa.
7. Test the GFCI before using your spa. The GFCI is located either on the spa control box or in the electrical panel. To test the GFCI push the TEST button and all power is disconnected from the spa, and the spa should stop operating. Push the RESET button and power will be applied. If the interrupter does not perform in this manner, then it is either defective or a ground current is flowing indicating the possibility of electric shock. Disconnect the power and do not use the spa until the fault has been identified and corrected.
8. Do not permit any electric appliance within 1.5 meters from your spa.

3. DANGER - RISK OF PERSONAL INJURY.

INSTALLATION FOR SAFETY

Spa installations that do not conform to the following procedures and requirements may expose spa users to the hazard of electric shock. Non-conforming spas will not be covered by warranty.

4.DANGER - RISK OF ELECTRIC SHOCK

1. The spa must be installed on a concrete pad 10 cm thick. In order to prevent flooding of the electrical equipment, the pad must be such that water will drain away from the spa.
2. The spa must be installed at least 1.5 meters away from any metal surfaces. Alternately all metal surfaces within1 .5 meters from the spa must be permanently ground connected to the spa equipment control box housing. Use an 8 AWG solid wire and attach it to a grounding lug provided on the equipment control box housing.
3. Only a licensed electrician may install power to the spa.
4. Spa power supply installation must include a properly rated circuit breaker, as per label on spa's control box enclosure. When tripped, the breaker must open all current carrying lines. It must be labeled and easily accessible to spa users.
5. Power supply lines must be hard wired into the spa's control box enclosure. The use of extension or plug type cords of any kind is dangerous and voids the warranty.
6. Supply lines must be properly sized as per National Electrical Code. A ground line must be provided that is as large as the largest current carrying conductor, but no less than solid 8 AWG.